



Policy Brief

December 2021

INTERNATIONAL PUBLIC POLICY INSIGHTS

IMPROVING PRIMARY HEALTH CARE RESPONSE DURING OUTBREAKS IN IRAN

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Primary Health Care (PHC) is the first point of contact for people seeking health services. The governance of PHC system in Iran entirely belongs to the Ministry of Health and Medical Education (MOHME). Iran PHC system has been affected by outbreaks and this imposes direct and indirect influence on government, PHC managers and staff, and people. Maintenance of continuity of care and responding to the outbreaks are the focus of PHC system in Iran during outbreaks. In this policy brief, training for health staff and public awareness on the use of Telemedicine and training for PHC managers for capacity building are the highlighted policy elements. Stakeholder engagement, designing user-friendly telemedicine platform, need assessment for all interventions, and developing accreditation model for PHC managers are the steps that should be taken towards effective implementation of the policy elements.



“Telemedicine implementation, managerial capacity building, and providing access to affordable essential medicines at PHC are defined as the most vital aspects of PHC strengthening during outbreaks in Iran.”

Editors: Moonesar, I.A., Stephens, M. & Warner, R.

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Abstract

Outbreaks are considered one of the most challenging health emergencies that health systems face. In these situations, the role of Primary Health Care (PHC), as the first point of contact, for combatting the spread of disease and maintaining the continuity of care, becomes more highlighted.

Although the PHC structure is well-functioned in Iran, outbreaks have always been substantial pressure on its performance. Fear of disease transmission, distance barriers, and resource limitations are identified as the main issues resulting in insufficient PHC response. The consequences will influence the government (Ministry of Health), PHC managers and staff, and people.

Considering the need for improving PHC performance during outbreaks, the following policy elements are suggested for implementation:

- Training for Health Staff
- Trainings for PHC managers
- Public Awareness for the use of telemedicine

Therefore, policy-makers should consider stakeholder engagement, design appropriate telemedicine platforms, develop an accreditation model for PHC managers, and comprehensive need assessment. Additionally, ensuring the availability of affordable medicines at PHC level and insurance coverage for telemedicine services are proposed to be among the priorities for further actions concerning improving PHC performance during outbreaks in Iran.

Background & Policy Issues

The Problem

As major public health threats, outbreaks make it difficult for countries to provide timely and effective health services (Kluge et al., 2018). Under such circumstances, the role of Primary Health Care (PHC), as the first level of contact for people seeking health services, has been more highlighted (Organization 2018). In line with achieving Universal Health Coverage (UHC), PHC should be the frontline for health emergency response to reduce the cost of treatment and care, prevent overloading of hospitals, and provide equitable access to care for the populations (Joulaei et al. 2010).

PHC function in Iran has noticeably been affected by the outbreaks, which causes interruption in providing essential health services (Afkar et al. 2021) and weakens the response to health emergencies (Shoja et al. 2020). Accordingly, these challenges impose direct and indirect impacts on the government, PHC managers, health staff, and people of the affected areas (Afkar et al. 2021; Amini et al. 2020; Shoja et al. 2020; Yari et al. 2021).

Size of the Problem

High burden outbreaks have always been occurring in Iran. COVID-19, H1N1, and cholera can be listed among the most problematic epidemics in the country.

- COVID-19 disease, as the greatest pandemic of modern history, infected 3,8701,008 PCR-confirmed cases and led to 90,630 deaths by the end of July 2021 in Iran (Iran overview, 2021).
- H1N1 is estimated to infect 5%-10% of adults and 20%-30% of children worldwide annually (Solgi et al. 2018). For example, during the 2009 H1N1 pandemic in Iran, 3,672 confirmed cases were reported within six months (Moghadami et al., 2010).
- Cholera outbreak has been reported almost every year in the country from July to December, possibly because of frequent commute between neighboring countries. During the past decades, the cholera cases have been decreased dramatically due to the better access of households to safe water and sanitary measures. However, during both 2005 and 2011 outbreaks, the number of cholera cases exceeded 1000 people (Masoumi-Asl, Kolifarhood, and Gouya 2019).

These outbreaks cause high pressure on PHC, as the first point of care, which results in disruption in providing routine health services due to travel barriers, fear, resources restrictions (Khari et al. 2021) (Afkar et al. 2021).

Underlying factors

Governance

PHC system in Iran is being structured through the Ministry of Health and Medical Education (MOHME) and the Universities of Medical Sciences (UMS) (Doshmangir et al., 2019). That being said, the system is almost entirely limited to the government, and no significant partnership exists from the private and other public sectors (Harirchi et al.,

2017). Therefore, the governance of the PHC system belongs to the MOHME and any activity addressing the PHC-related problems should be implemented by the government.

In this respect, upstream governance documents about health are as follows:

1) 5-year development plans that reflect the government's general policies. Article 32 of the 5th development plan focuses on providing equitable and affordable access to health services through PHC and prioritizes the benefits for rural and sub-urban areas (Moghaddam et al. 2013).

2) Health Transformation Plan, launched in 2014, focuses on PHC to improve access to care and reduce financial hardship (Doshmangir et al. 2019). The plans and projects that are prioritized to be implemented through HTP include but are not limited to the following areas (Doshmangir et al. 2019):

- Providing health services to rural, suburban, and urban areas
- Providing emergency services and
- Developing service packages
- Empowering the PHC networks in the whole country
- Enhancing the information system
- Capacity building for managers
- Improving health literacy
- Having a partnership with the education centers

Financing

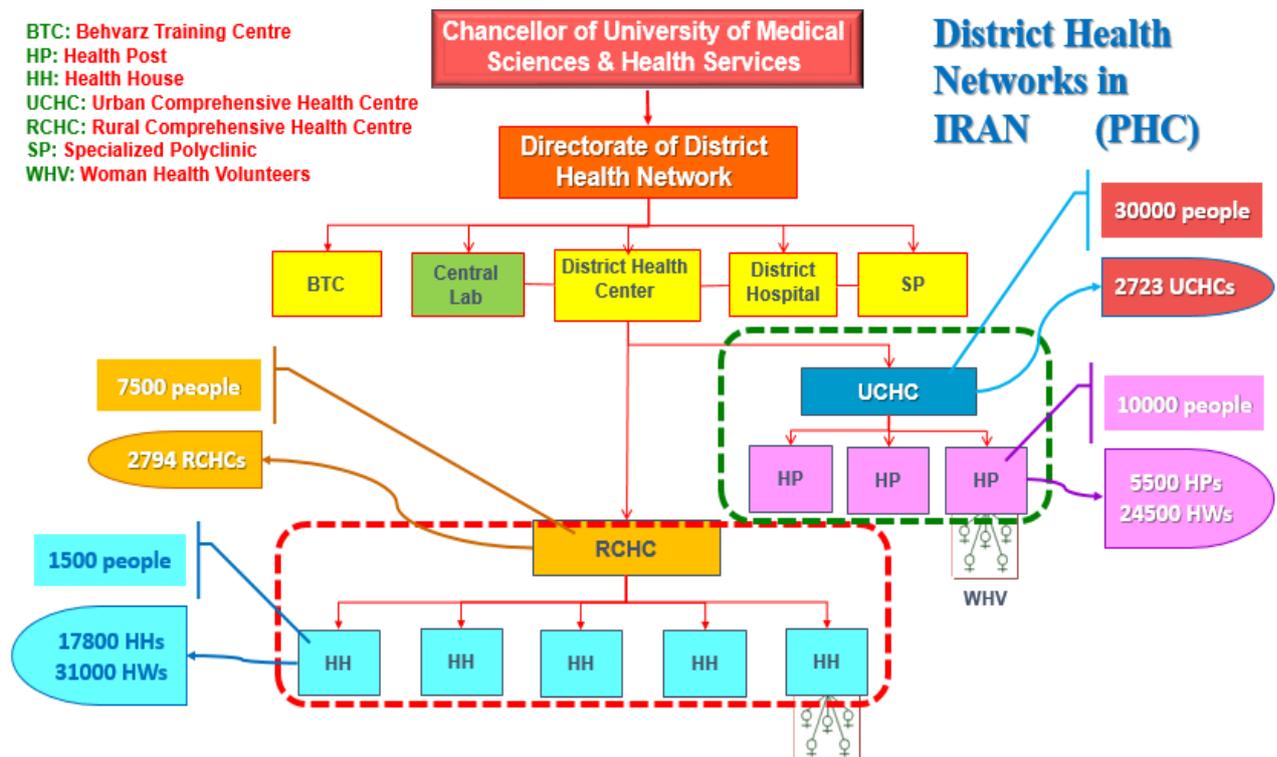
PHC financing-related indicators in Iran can be listed as follows:

- Government health spending as a percentage of GDP: 4.4%
- Domestic general government expenditure on PHC as a % of total PHC expenditure: 30%
- PHC Spending Per Capita: \$170 ("PHCMI Report, Islamic Republic of Iran" 2019)
- PHC spending as a share of total current health expenditure in Iran is 4.7% (Harirchi et al. 2017).

In terms of payments, PHC services are categorized into 3 main groups: 1) No franchise will be obtained for the services included in capitation (vaccination, basic and periodic visits, target groups care, oral and dental health services for target groups, and pre-pregnancy



tests); 2) Franchise is collected for outpatient visits and pharmaceutical and para-clinical services with the remaining costs being received from the insurance companies; 3) Receivers or insurance companies are paying total service cost under government tariffs for services like injections, dressings, and pre-specified dental services (Gharaee et al. 2019) .



Delivery

In rural areas, the PHC network covers 98% of the total rural population (28M). The rural PHC structure consists of Health Houses (H.H.s) and Rural Comprehensive Health Centers (RCHCs). Each RCHC approximately encompasses 5 H.H.s while each H.H. covers 1000-1500 residents. Therefore, the rural PHC workforce is considered 31,000 Behvarzes (CHWs), 6642 Family Physicians, and 5,852 Midwives.

In urban and sub-urban areas, Health Posts (H.P.s) and Urban Comprehensive Health Centers (UCHCs) comprise the PHC facilities that cover around 93% of the total urban population (54M). Each UCHC wraps around 3 H.P.s, and each H.P. provides services to nearly 12,500 individuals. Urban PHC workforce includes 24,000 Moragheb-e-Salamat (CHWs), 3,987 physicians, and 12,032 other care providers (dentists, nurses, midwives, and

other health professionals in occupational health and environmental health, nutrition, mental health, etc.). The provided services at PHC level vary widely, including preventive care, health promotion, screening, simple symptomatic treatment, and referrals (Raeisi, Tabrizi, and Gouya 2020).

Stakeholder Analysis

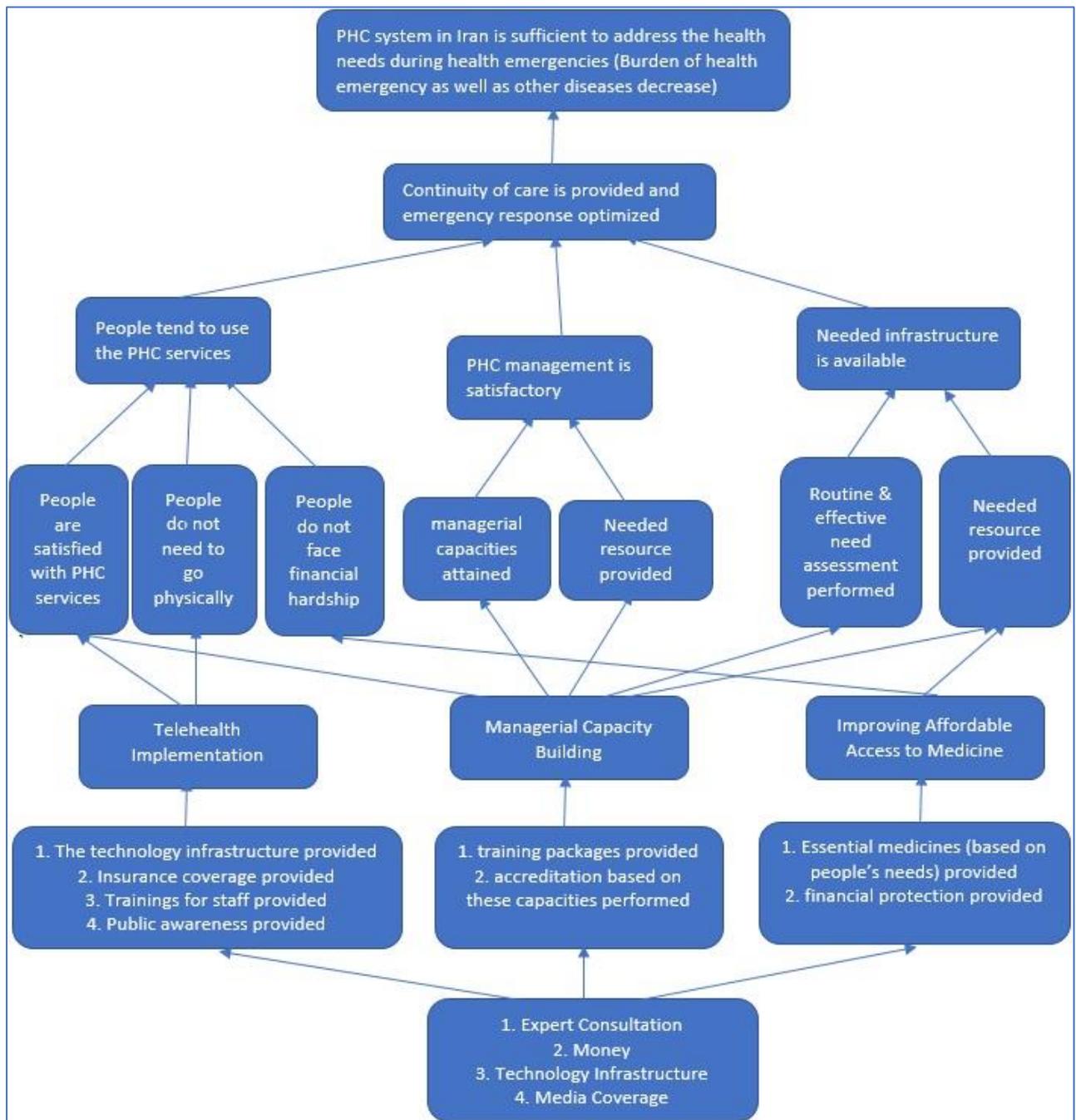
The Stakeholder Analysis Table:

Stakeholder Analysis			
Influence	High	<ul style="list-style-type: none"> Ministry of Health (different departments of Public Health Deputy) Food and Drug Administration 	<ul style="list-style-type: none"> Ministry of Health (PHC Network Management Center) Insurance
	Low	<ul style="list-style-type: none"> People Pharmaceutical Companies National Institute for Health Research (Academic) 	<ul style="list-style-type: none"> PHC Facilities (Managers) Physicians and Community Health Workers
		Low	High
		Support	



Theory of Change

The policy's main goal is to implement activities to enhance the country's response to outbreaks and improve the continuity of care for people. The Theory of Change Diagram is demonstrated as follows:



Policy Options & Recommendations

Elements to address the problem

Three options are selected in order to improve PHC performance during outbreaks in Iran. These options aim to maintain the continuity of care along with better responding to outbreaks through focusing on telemedicine implementation and Managerial Capacity Building.

Element 1: Training for Health Staff

Training packages for staff on the use of telemedicine

Element 2: Trainings for PHC managers

Training packages for PHC managers on managerial skills needed during health emergencies

Element 3: Public Awareness for the use of telemedicine

Using media (T.V., banners, Radio, other social media platforms) to familiarize people with telemedicine

Policy Element 1	Training for Health Staff
Underlying Factor	Delivery
Overview	Telemedicine implementation at PHC level is necessary, particularly during outbreaks, and is feasible, especially for patients with chronic diseases, high-risk patients, and refilling prescriptions. It can also be considered a suitable tool for follow-up communicable diseases concerning the outbreaks. Therefore, training for health service providers is essential to implement telemedicine efficiently. The training should cover communication skills and the use of technology (Tully et al., 2021).
Benefits	The benefits of conducting staff training for the use of telemedicine can be listed as (Tully et al. 2021): <ul style="list-style-type: none">• Increased solidarity and communication between staff• Enhanced case management• Providing learning opportunities• Stress reduction• Improved efficiency• Decreased risk of infection both for staff and patients



- Improved time management

Potential harms	No specific harms have been reported in accordance with staff training on the use of telemedicine (Tully et al., 2021).
Cost / Cost-effectiveness	<p>Studies have reported that telemedicine is generally cost-effective (Farabi et al., 2020). The main costs related to telemedicine implementation and services are equipment expenses, I.T. infrastructure, provider salaries, and training (Doshi et al. 2020).</p> <p>In Iran, there is a structured continued training curriculum for PHC health workers (Javanparast et al., 2011). This would enable the health system to integrate the telemedicine training packages into the pre-developed training infrastructure.</p>
Uncertainty	The quality of quantitative studies is mainly reported as unsatisfactory. Moreover, there are issues related to technological infrastructure reported in older papers that may no longer be problematic. In addition, identified costs and implementation barriers and facilitators depend on the country's context. For Iran, this is more complicated, given that no analysis has been performed (Tully et al., 2021).

Policy Element 2	Training for PHC managers
Underlying Factor	Delivery
Overview	<p>Following the COVID-19 pandemic and the need for more robust PHC systems in response to outbreaks, while maintaining the continuity of care, it is suggested to implement a new management framework. This framework should cover managerial skills concerning communicable and non-communicable diseases, maternal and child health, and emergency preparedness, response, and recovery (Bibaa 2020). In addition, the following managerial skills are recommended to be developed in response to emergency situations like outbreaks:</p> <p><u>1) Put People First:</u> To provide physical and emotional care for the affected population.</p> <p><u>2) Manage Operations Creatively:</u> To improve the ability of systems in thinking, learning mindset, and developing ideas.</p>

3) Attend to Teamwork and Communication: To reach the most efficient, timely, and problem-solving approaches by addressing uncertainties that are more likely to happen due to the shifting of workers' roles during the crisis.

4) Create Outside Partnerships: To better tackle the resource shortage, reach novel knowledge, and raise funds.

5) Embrace Clear and Humble Leadership: To prioritize actions, communicate properly, and provide resources (Nembhard, Burns, and Shortell 2020).

Benefits The managerial capacities and knowledge are highly determining health system effectiveness. In this regard and referring to the evaluation of the training programs for PHC managers in Iran, these programs could noticeably improve the PHC managers' knowledge regarding epidemiology, planning and evaluation, non-communicable disease management, human resources, and creativity (Gholipour et al., 2018).

Potential harms No specific harms have been reported following conducting training courses for PHC managers.

Cost / Cost-effectiveness The training programs for managers are considered as cost-effective interventions. In fact, although the cost of conducting training courses might be high, the plus points of improvement in managerial skills will excel the costs (Pfeffermann, G. 2012).

Uncertainty There is limited evidence on the long-term impact of training programs for PHC managers on service delivery, specifically during outbreaks (Gholipour et al. 2018).



Policy Element 3 Public awareness for the use of telemedicine	
Underlying Factor	Deliver
Overview	It is crucial to implement telemedicine and improve effective engagement of people with it during the outbreaks to prevent the transmission of diseases and maintain the continuity of care, particularly for patients with chronic diseases. (Monaghesh and Hajizadeh 2020). Hence, improving people's health literacy, acceptance, and perception towards using telemedicine is required to successfully implement this approach. In this regard, handbooks, webinars, campaigns, and other programs for raising public awareness are recommended (Légaré et al. 2010).
Benefits	<p>People would most importantly benefit from using telemedicine during outbreaks in the following aspect: (Légaré et al. 2010)</p> <ul style="list-style-type: none"> • Minimizing the risk of transmission and spreading of diseases • Screening for people who have signs and symptoms of the transmitted diseases. • Providing medication management for people with chronic diseases • Offering counseling or follow-up services
Potential harms	No significant harms have been reported regarding the use of telemedicine by people compared to routine care. (Légaré et al. 2010)
Cost / Cost-effectiveness	Expenses related to platform designing and implementation, recruiting staff, and providing trainings are most significant costs associated with telemedicine (Doshi et al. 2020). However, Telehealth is considered as a cost-effective approach (Farabi et al. 2020). Additionally, it will increase the cost-effectiveness of targeting clinical groups for telemedicine services. (Bertoncello et al. 2018).
Uncertainty	There is insufficient evidence on the optimum settings of the user-friendly platforms for patients categorized by different age groups or diseases. This will highly influence the efficacy of telemedicine. Moreover, there is lack of information about the effect of patients' engagement and the best way to engage them on the cost-effectiveness of telehealth (Bertoncello et al. 2018).

Implementation considerations and counterstrategies

The mentioned policy elements are aimed to propose the most feasible, practical, efficient, and effective interventions towards achieving a stronger PHC performance during and in response to outbreaks. By definition, these steps are vital for maintaining the continuity of PHC health services along with controlling the outbreaks.

However, several barriers/challenges should be considered for implementing these policy elements.

The most problematic issues that influence the efficacy of the interventions are indicated below:

- ❖ Policy elements addressing Telemedicine implementation (Légaré et al. 2010; Tully et al. 2021):
 1. Lack of insurance coverage
 2. Complexity of platforms
 3. Reliability to technology
 4. Engagement of different groups for the use of this technology
- ❖ Training for PHC managers (Gholipour et al. 2018):
 1. Inadequate need assessment
 2. No accreditation process for PHC managers is in place

In this regard, the following strategies to conquer the above-mentioned barriers and challenges are suggested:

- ❖ Policy elements addressing Telemedicine implementation (Légaré et al. 2010; Tully et al. 2021):
 1. Engagement of stakeholders from health insurance organizations
 2. Designing and implementing user-friendly systems
 3. Clear defining of goals for the users
 4. People's need and demographic situation should be assessed before the implementation of any public awareness activities for their engagement

Training for PHC managers (Gholipour et al. 2018):

1. Systematic and comprehensive need assessment should be performed with the aim of developing the most effective training packages
2. An effective accreditation model for PHC managers in Iran should be developed to monitor the continuity of management improvement



Conclusion

In addition to the discussed policy elements, other activities and policy options should also be considered for improved PHC performance during the outbreaks in Iran. In this regard, health insurance coverage on telemedicine services, accreditation plan for PHC managers, and providing affordable essential medicines available at PHC are proposed to be among the top priorities for policy-makers at the Iran Ministry of Health and Medical Education (MOHME).

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Acknowledgment

The author(s) wishes to express personal appreciation to the following individuals for their input to the different stages of producing this report and for providing essential input and assistance into the report and its related materials:

Fadi El-Jardali

Diana S. Jamal

Racha Fadlallah

Marouen Ghezal

This policy brief report document has been adapted from the K2P Center template to provide access to optimally packaged, relevant, and high-quality research evidence for decision-making. We would like to acknowledge the Mohammed Bin Rashid School of Government, Dubai, UAE, and the Alliance for Health Policy and Systems Research at the World Health Organization for support as part of the Knowledge to Policy (K2P) Center Mentorship Program [BIRD Project].

Citation

This publication should be cited as:

Bonyani, Atousa (2021). Improving primary health care response during outbreaks in Iran. Issue no. 4. (Eds.) Moonesar, I.A., Stephens, M. & Warner, R., in *International Public Policy Insights*, Academy of International Business Middle East North Africa Chapter & Mohammed Bin Rashid School of Government, Dubai, United Arab Emirates, [14, December 2021].

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